

TRIAXIAL TEST EQUIPMENT

Introduction

The equipment is used for finding our shear strength characteristics with the change in confining pressure. Rock cores ranging from 'Ex' size to 'Nx' size can be tested at varying confining pressures. Diameter to length ratio of specimen is 1:2 or 1:2.5.

High Pressure Triaxial Cells

The unit consists of metallic high pressure chamber. A hardened, ground and lapped frictionless plunger passes through the removable head. The cylinder is fixed to a removable base plate having four drilled take off positions for lateral pressure, pore pressure, back pressure and top drainage. The specimen pedestal and loading pads are also hardened. Spherical seating is provided at the top of the specimen loading pad for self alignment. Triaxial Cell has arrangement for taking out electrical leads of strain gauges pasted on the specimen. Provision is made to take out eight leads.



HR72.550

Pressure Range

HR72.530	: 0 - 7 Mpa
HR72.535	: 0 - 15 Mpa
HR72.540	: 0 - 35 Mpa
HR72.545	: 0 - 50 Mpa
HR72.550	: 0 - 70 Mpa

Hoek Type Triaxial Cell

Triaxial tests on rocks, when conducted using conventional High Pressure Triaxial Cells, are time consuming and require special arrangements to handle them. Where as with the use of Hoek type Cells, these tests can be completed in much less time by a single operator.

Though these cells are being widely used abroad, HEICO is the only manufacturer in the country to develop the Hoek Type Cells for Nx to Ex size cores along with all accessories. These cells can withstand and pressure of upto 50mpa

●● HR72.55

'HEICO' Hoek Type Triaxial Cell (For Nx size cores)

It consist of

- i) Basic Cell of steel body.
- ii) Two nos. steel end caps.
- iii) Two nos. loading pistons, each incorporating a spherical seating.
- iv) Two nos. self sealing couplings, one for connecting to hydraulic pressure system and the other for deairing the cell chamber or attachment of pressure measuring device, if required.
- v) Load spreader pads to prevent damage to the platens of Compression Testing Machine/Loading Unit.
- vi) Six Nos. sleeves made from special rubber, capable of withstanding high lateral pressure.

HR72.56 Hoek Type Triaxial Cell for Bx size cores

HR72.57 Hoek Type Triaxial Cell for Ax size cores.

HF72.58 Hoek Type Triaxial Cell for Ex size cores.



HR72.560